FPD-7024 Fire Alarm Control Panels

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Invented for life

- Four initiating zones (expandable to eight); up to 20 two-wire smoke detectors per zone
- Built-in DACT
- Two notification appliance circuits (NACs) on board with a shared internal regulated 24 VFWR, 4 A NAC power supply
- Easily converts to addressable with the addition of a D7039 Multiplex Expansion Module
- Programmable through front panel interface, remote FMR-7033 Liquid-crystal Display (LCD) Keypads, remote programming software (RPS), or DX4010V2 or DX4020

The FPD-7024 Fire Alarm Control Panels (FACPs) can be used in commercial and public building applications such as schools, universities, manufacturing plants, and health care facilities. They are listed by UL for central station, local, auxiliary, and remote station systems.
The FPD-7024 FACPs support four on-board initiating zones that can be expanded to eight using the FPC-7034. Each initiating zone supports two-wire and four-wire detectors configurable as Class A , Style D or Class B, Style B loops. Each zone can support up to 20 two-wire detectors, or any number of four-wire detectors depending on available power. Each FACP has a built-in digital fire alarm communicator transmitter (DACT).
Enhance the FPD-7024 conventional system features by adding a D7039 Multiplex Expansion Module. Adding a D7039 Multiplex Expansion Module to the FPD-7024 turns the conventional FACP into an addressable FACP. The D7039 adds up to 247 addressable points to the base system and adds an additional 400 events to the history buffer for a total of 499 events. The D7039 also increases the number of programmable relay outputs from 19 to 59 and expands system users to 100.

Functions

Notification Appliance Circuits (NACs)
Two Class A, Style Z or Class B, Style Y NACs provide up to 4 A of regulated 24 VFWR power to operate horns, strobes, bells, and other notification appliances. Each NAC can be programmed to provide Temporal Code 3, California March, steady, pulsed, and synchronized output for Wheelock, Gentex, or System Sensor notification appliances.

User Interface
A viewing port in the locked control panel enclosure door shows the system status light-emitting diodes (LEDs) and liquid-crystal display (LCD) while maintaining system keypad security. Unlocking the enclosure door provides access to the system controls for silencing off-normal conditions, zone bypassing, detector resetting, testing, other fire functions, and programming. These functions are also available on all FMR-7033 LCD Keypads connected to the system.

Organized Event Display
Sorts alarm, trouble, and supervisory events into categories and allows scrolling through specific events.

History Buffer
The system stores events in a 99-event history buffer.

Notice
The number of events that can be stored in the history buffer increases to 499 with the addition of a D7039 Multiplex Expansion Module.

Central Station Reporting
The FPD-7024 FACPs send reports to two telephone numbers (or IP addresses with a DX4020 Network Interface Module installed) with full single, double, and backup reporting. They communicate in BFSK, SIA, Contact ID, Modem IIIa^2, and 4/2 and 3/1 Tone Bursts.

Dirty Smoke Detector Monitoring
All on-board zones and FPC-7034 zones are continuously monitored for smoke detectors signaling a dirty condition using the Bosch Chamber Check feature and CleanMe protocol. If a detector's smoke chamber is dirty, the detector sends a CleanMe signal on the two-wire loop or a dirty detector signal on the addressable loop. The control panel annunciates that there is a dirty detector on the loop or the address. The Chamber Check feature signals a dirty smoke chamber using the LED on the detector head.

Accessories
The FPD-7024 enclosure has space for additional accessory modules and two D1218 (18 Ah) batteries or two D126 (7 Ah) batteries.

Certifications and approvals

Region	Certification	
USA	FCC	ESVAL04B7024
	FM	
	CSFM	7165-1615:0227
	FDNY-CoA	#6024
Brazil	ANATEL	0383-11-1855
USA	UL	UOJZ: Control Units, System (ANSI/UL 864)

Installation/configuration notes

Compatible Products
The following products are compatible with the FPD-7024 FACP:

Category	Product ID	Product Description
Batteries and Power Supplies	D126	12 V, 7 Ah battery
	D1218	12 V, 18 Ah battery
	D7038	Remote NAC power supply
Detectors	For two-wire detector compatibility, refer to *FPD-7024 Smoke Detector Compatibility List Technogram* (P/N: F01U010790)	
Keypads and Annunciators	D7030X	Eight-point LED annunciator (eight red)
	D7030X-S2	Eight-point LED annunciator (two yellow, six red)
	D7030X-S8	Eight-point LED annunciator (eight yellow)
	D7032	Eight-point LED annunciator expander (eight red)
	FMR-7033	LCD fire system keypad
	FMR-7036	LCD annunciator
Modules	D132B	Smoke detector reversing relay module
	D184A	Local energy kit
	D185	Reversing polarity module
	D275	EOL power supervision module
	FPC-7034	Four-point expander
	D7039	Multiplex expansion module
Option Bus Devices	D7035	Octal relay module
	D7035B	Octal relay module in box
	DX4010V2	USB/serial interface module
	DX4020	Network interface module
	B420	Ethernet Communicator
	B420-CN	Ethernet Communicator for China
NAC Devices	Refer to *FPD-7024 Device Compatibility List Technogram* (P/N: F01U010791)	

The following additional products are compatible with the FPD-7024 Addressable FACPs:

Category	Product ID	Product Description
Detector Heads and Bases	D7050	Addressable Photoelectric Smoke Detector Head
	D7050TH	Addressable Photoelectric Smoke and Heat Detector Head
	D7050-B6	Detector Base
Modules	D7042	Multiplex eight-input remote module
	D7042B	Multiplex eight-input remote module in box
	D7044	Multiplex single-input module

	D7044M	Mini multiplex single-input module
	D7048	Multiplex octal driver
	D7048B	Multiplex octal driver in box
	D7052	Multiplex dual-input module
	D7053	Multiplex input-output module
Pull Stations	FMM-7045	Single-action manual station
	FMM-7045-D	Double-action manual station

Parts included

FPD-7024

Quant.	Component
1	FPD-7024 board in a static-resistant bag
1	Enclosure
1	Lock set with two #1358 (D102) keys (P/N: F01U083084)
1	Transformer (P/N: F01U033706)
6	2.21 kΩ end-of-line (EOL) resistors (P/N: F01U034504)
1	Hardware pack
1	Literature pack

Notice

For the FPD-7024 to be addressable, a D7039 Multiplex Expansion Module must be installed. The D7039 is purchased separately.

FPD-7024-LC

Quant.	Component
1	FPD-7024 board in a static-resistant bag
1	Hardware pack
1	Literature pack

FPD-7024-LT

Quant.	Component
1	FPD-7024 board in a static-resistant bag
1	Enclosure
1	Lock set with two #1358 (D102) keys (P/N: F01U083084)
6	2.21 kΩ end-of-line (EOL) resistors (P/N: f01U034504)
1	Hardware pack
1	Literature pack

FPD-7024-A

Quant.	Component
1	FPD-7024-A board in a static-resistant bag
1	Enclosure
1	Lock set with two #1358 (D102) keys (P/N: F01U083084)
1	Transformer (P/N: F01U033706)
6	2.21 kΩ end-of-line (EOL) resistors (P/N: F01U034504)
1	Hardware pack
1	Literature pack

FPC-7024-FK1

Quant.	Component
1	FPD-7024 FACP
1	F220-B6E 6-in. (15.24-cm) diameter, 4-wire base with EOL relay
1	F220-P photoelectric spot smoke detector
1	FMM-100SATK manual station (red)
2	D162@24 2-ft (60.96-cm) dual modular phone cord
2	D166@24 RJ31X phone jack

Technical specifications

Electrical

Current (alarm):	380 mA
Current (standby):	200 mA
Power (primary):	120 VAC , 1.2 A maximum, 60 Hz or 240 VAC , 0.75 A maximum, 50 Hz

Environmental

Environment:	Indoor, dry
Relative Humidity:	Up to 95%, non-condensing
Temperature (operating):	+32°F (0°C) to +120°F (+49°C)

Mechanical Properties

Color:	Red
Dimensions (HxWxD):	20.8 in. x 15 in. x 4.3 in. (52.8 cm x 38.1 cm x 10.9 cm)
Material:	Cold-rolled steel Base: 18 gauge (1.2 mm) Cover: 19 gauge (1.1 mm)

Indicating Device Circuits (IDC)

Current:	44 mA maximum per loop
Line resistance:	150 Ω
Voltage:	24 VDC nominal

Outputs

NAC:	24 VDC nominal, 4 A maximum
On-board Relays:	Three Form C contacts rated at 5 A, 28 VDC
Off-board Relays:	Up to two D7035 Octal Relay Modules with each providing eight Form C relay outputs; contacts rated at 5 A, 28 VDC In an addressable system, up to 20 D7053 Multiplex Input-Output Modules are allowed per bus for a total of 40

Trademarks

All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

Ordering information

FPD-7024 FACP
Four detector zones (expandable to eight); up to 20 two wire smoke detectors per zone
Order number **FPD-7024**

FPD-7024-LC FACP without Enclosure and Transformer
Four detector zones (expandable to eight); up to 20 two wire smoke detectors per zone
Order number **FPD-7024-LC**

FPD-7024-LT FACP without Transformer
Four detector zones (expandable to eight); up to 20 two wire smoke detectors per zone. **Available only in Latin America.**
Order number **FPD-7024-LT**

FPD-7024-A Fire Alarm Control Panel for Anatel
Four detector zones (expandable to eight); up to 20 two wire smoke detectors per zone. **Has Anatel approval for use in Brazil.**
Order number **FPD-7024-A**

D102 Replacement Key
Replacement key (#1358) for LOCK-1358 and the D101 lock.
Order number **D102**

Accessories

Basic Fire Panel Kit
Four-zone FACP with one four-wire photoelectric smoke detector and base with EOL relay, one two-wire horn/strobe, one manual station, and two RJ31X phone jacks with dual modular phone cords.
Order number **FPC-7024-FK1**

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